

THOMSON  DELPHION		RESEARCH My Account Products	PRODUCTS Search: Quick/Number Boolean Advanced Derwent	INSIDE DELPHION
--	--	--	--	------------------------

The Delphion Integrated View

Get Now: ☒ PDF | [More choices...](#)

Tools: Add to Work File: [Create new Work File](#)

View: [INPADOC](#) | Jump to: [Top](#) Go to: [Derwent](#)

[Email this to a](#)

Title: JP10064549A2: NONAQUEOUS ELECTROLYTE SECONDARY BATTERY

Derwent Title: Non-aqueous electrolyte for secondary lithium battery - has anode which comprises binder and compound with predetermined enthalpy of fusion and melting as heat absorber ([Derwent Record](#))

Country: JP Japan
Kind: A (See also: [JP3480190B2](#))

Inventor: MURAOKA NORIKI;
 OZAKI YOSHIYUKI;
 KOBAYASHI SHIGEO;
 WATANABE SHOICHIRO;

Assignee: MATSUSHITA ELECTRIC IND CO LTD
[News, Profiles, Stocks and More about this company](#)

Published / Filed: 1998-03-06 / 1996-08-23

Application Number: JP1996000222114

IPC Code: [H01M 4/62](#); [H01M 4/02](#); [H01M 10/40](#);

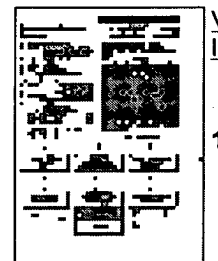
Priority Number: 1996-08-23 JP1996000222114

Abstract: PROBLEM TO BE SOLVED: To suppress a rise in temperature of a battery caused by short circuit by containing a heat absorbing material of a polymer compound having a specified melting point and heat of fusion and a binder such as styrene - butadiene rubber in a positive electrode of a nonaqueous electrolyte secondary battery.

SOLUTION: A nonaqueous electrolyte secondary battery has a positive electrode using a lithium containing composite oxide as an active material, a negative electrode comprising a carbon material capable of absorbing/releasing lithium, and a nonaqueous electrolyte. A polymer compound having a melting point of 90-130°C and a heat of fusion of 30J/g or more (such as polyethylene, polypropylene, and ethylene - ethyl acrylate - maleic anhydride copolymer) is contained in the positive electrode as a heat absorbing material, and has a globular shape of a mean particle size of 1-12µm, and the added content is 10% or less. As a binder, styrene - butadiene rubber, polyvinylidene fluoride, or polytetrafluoroethylene, etc., is contained in the positive electrode. The nonaqueous electrolyte secondary battery capable of satisfying battery characteristics and suppressing the rise in temperature of the battery when short circuit of the battery arose on the inside and the outside.

COPYRIGHT: (C)1998,JPO

INPADOC






Best Available Copy

Legal Status: None [Get Now: Family Legal Status Report](#)

[Family:](#) [Show 2 known family members](#)

[Forward References:](#) [Go to Result Set: Forward references \(3\)](#)

PDF	Patent	Pub.Date	Inventor	Assignee	Title
	US6596430	2003-07-22	Nemoto; Hiroshi	NGK Insulators, Ltd.	Lithium secondary battery and transportation method thereof
	US6586912	2003-07-01	Tsukamoto; Hisashi	Quallion LLC	Method and apparatus for amplifying limiting battery temperature spike
	US6291103	2001-09-18	Park; Yong-Chul	Samsung SDI Co., Ltd.	Positive active material for rechargeable lithium battery

[Other Abstract Info:](#) [CHEMABS 128\(16\)194743Z](#) [CAN128\(16\)194743Z](#) [DERABS C98-222647](#) [DERC98-222647](#)



[Nominate this for the Gallery...](#)



© 1997-2004 Thomson

[Research Subscriptions](#) | [Privacy Policy](#) | [Terms & Conditions](#) | [Site Map](#) | [Contact Us](#) | [Help](#)



(19)

(11) Publication number: **10064**

Generated Document.

PATENT ABSTRACTS OF JAPAN(21) Application number: **08222114**(51) Intl. Cl.: **H01M 4/62 H01M 4/02 H01M 10/40**(22) Application date: **23.08.96**

(30) Priority:	(71) Applicant: MATSUSHITA ELECTRIC IN. LTD
(43) Date of application publication: 06.03.98	(72) Inventor: MURAOKA NORIKI OZAKI YOSHIYUKI KOBAYASHI SHIGEO WATANABE SHOICHIRO
(84) Designated contracting states:	(74) Representative:

**(54) NONAQUEOUS
ELECTROLYTE
SECONDARY BATTERY**

(57) Abstract:

PROBLEM TO BE SOLVED: To suppress a rise in temperature of a battery caused by short circuit by containing a heat absorbing material of a polymer compound having a specified melting point and heat of fusion and a binder such as styrene - butadiene rubber in a positive electrode of a nonaqueous electrolyte secondary battery.

SOLUTION: A nonaqueous electrolyte secondary battery has a positive electrode using a lithium containing composite oxide as an active material, a negative electrode comprising a carbon material capable of absorbing/releasing lithium, and a nonaqueous electrolyte. A polymer compound having a melting point of 90-130°C and a heat of fusion of 30J/g

or more (such as polyethylene, polypropylene, and ethylene - ethyl acrylate - maleic anhydride copolymer) is contained in the positive electrode as a heat absorbing material, and has a globular shape of a mean particle size of 1-12 μ m, and the added content is 10% or less. As a binder, styrene - butadiene rubber, polyvinylidene fluoride, or polytetrafluoroethylene, etc., is contained in the positive electrode. The nonaqueous electrolyte secondary battery capable of satisfying battery characteristics and suppressing the rise in temperature of the battery when short circuit of the battery arose on the inside and the outside.

COPYRIGHT: (C)1998,JPO